Datasheet for ABIN925538

GLB1 Protein

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Overview

Quantity:	1 mg
Target:	GLB1
Reactivity:	Please inquire
Host:	Please inquire
Protein Type:	Recombinant
Application:	Immunoassay (IA)

Product Details

Characteristics:	Concentration Definition: by UV absorbance at 280 nm
Sterility:	Sterile filtered

Target Details

Target:	GLB1
Alternative Name:	Beta Galactosidase (GLB1 Products)
Background:	β-galactosidase, also called beta-gal or β-gal, is a hydrolase enzyme that catalyzes the hydrolysis of β-galactosides into monosaccharides. Substrates of different β-galactosidases include ganglioside GM1, lactosylceramides, lactose, and various glycoproteins. Lactase is often confused as an alternative name for β-galactosidase, but it is actually simply a sub-class of β-galactosidase. β-galactosidase is an exoglycosidase which hydrolyzes the β-glycosidic bond formed between a galactose and its organic moiety. It may also cleave fucosides and arabinosides but with much lower efficiency. It is an essential enzyme in the human body, deficiencies in the protein can result in galactosialidosis or Morquio B syndrome. In E. coli, the

Target Details

	gene of β-galactosidase, the lacZ gene, is present as part of the inducible system lac operon which is activated in the presence of lactose when glucose level is low. It is commonly used in molecular biology as a reporter marker to monitor gene expression. It also exhibits a phenomenon called α-complementation which forms the basis for the blue/white screening of recombinant clones. This enzyme can be split in two peptides, LacZα and LacZΩ, neither of which is active by itself but when both are present together, spontaneously reassemble into a functional enzyme. This property is exploited in many cloning vectors where the presence of the lacZα gene in a plasmid can complement in trans another mutant gene encoding the LacZΩ in specific laboratory strains of E. coli. However, when DNA fragments are inserted in the vector, the production of LacZα is disrupted, the cells therefore show no β-galactosidase activity. The presence or absence of an active β-galactosidase may be detected by X-gal, which produces a characteristic blue dye when cleaved by β-galactosidase, thereby providing an easy means of distinguishing the presence or absence of cloned product in a plasmid. Synonyms: GLB1
UniProt:	P16278
Pathways:	Glycosaminoglycan Metabolic Process

Application Details

Application Notes:	Beta Galactosidase is used as a control in beta-galactosidase based immunological assays.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	0.05 M Potassium Phosphate, pH 7.8
Storage:	4 °C